

Note: In the recently-published Journal of the Malacological Society of Australia, 1: 30-31, a new form of the genus *Cymbiolacca* is described as *Aulicina perryi*, Ostergaard and Summers, from "Westaria" (*sic*, = Wistari) Reef, Capricorn Group. This form appears to be closely related to the Heron Island shells here described, and its taxonomic status will be discussed in the review of the genus which is in course of preparation.

REFERENCES

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Descriptions of New Species of Chitons (Mollusca, Loricata)

By K. L. MILNE.

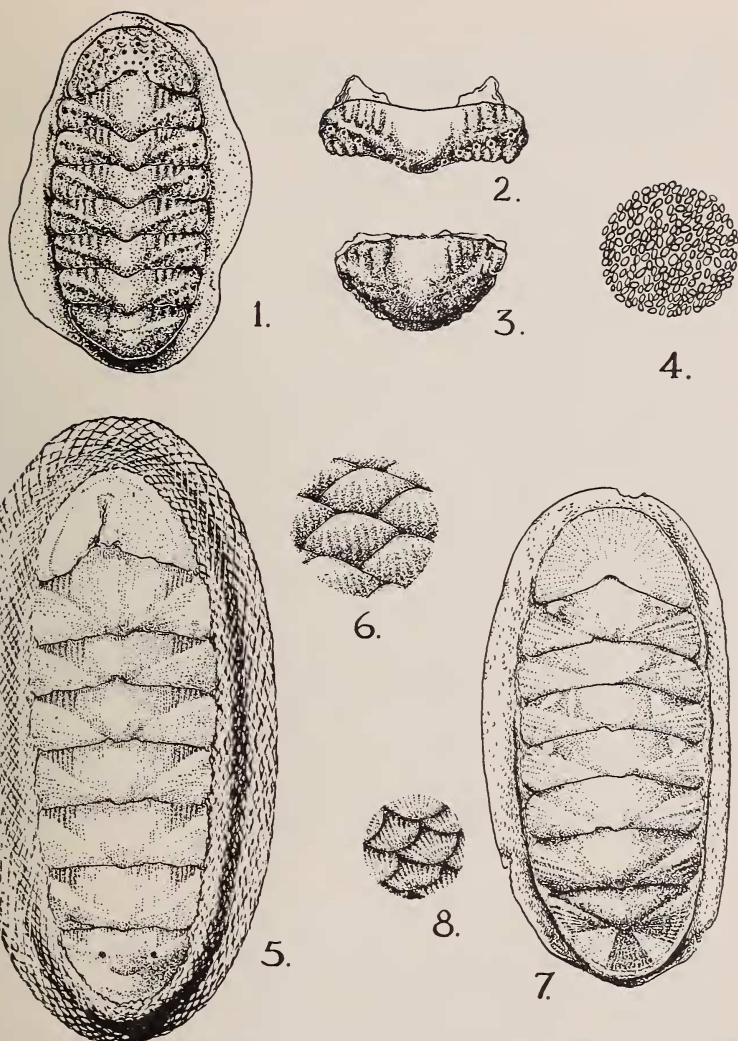
It is now some thirty years since Iredale and Hull's Monograph of the Australian Loricates was issued, classifying and describing the known chiton fauna at that time. Intensive collecting of this group of molluscs during the intervening years has confirmed the data presented by Iredale and Hull for the most part. Some new species have been found, and descriptions of three of these are given here. Unfortunately two of the new species are based on one or two specimens only, and consequently details of slitting and valve interiors are not known, but it is hoped additional material may soon be available to complete our knowledge of these forms. It is hoped that this and other papers published on the chiton fauna may one day be combined and issued as a supplement to the Monograph.

Genus LUCILINA Dall, 1881.

Type Species by Monotypy, *Chiton confossus* Gould 1846.

LUCILINA TILBROOKI, sp. nov.

Description: Shell elongate oval, dried specimen measuring 8.5 mm. in length by 4 mm. in breadth; median valves round-backed with sides distinctly convex; colour darkish dull red; anterior valve smooth near apex, with rays of inverted V-shaped nodules; shoulder valve with the beak slight, median valves with lateral areas strongly differentiated, each with 2 to 4 radiating rows of irregular pustules, the centre row shorter with pustules smaller than the outer rows; pleural area of each median valve with 6 to 7 ribs, slightly weaker near the jugum, the bases corresponding with the anterior row of pustules on the lateral areas, jugum smooth; posterior valve with mucro central, elevated, the post-mucronal slope steeply convex, vertical at base, the ante-mucronal area sulcate, with ribs as in the median valves, the post-mucronal area irregularly pustulose; girdle fleshy when alive, flat and horny when dried, relatively wide, and, when viewed under a powerful lens, seen to be covered with a closely-packed



Figures 1, 2, 3, & 4: *Lucilina tilbrooki*, sp. nov. Paratype, K. L. Milne Collection. Figure 1: Dorsal view of whole shell (Magnification X 7). Figure 2: Median Valve (Magnification X 10). Figure 3: Posterior Valve (Magnification X 10). Figure 4: Detail of Girdle Scales (Magnification X 80).

Figures 5 & 6: *Haplopax mariae*, sp. nov. Holotype, Aust. Mus. Regd. No. C.62219. Figure 5: Dorsal view of whole shell (Magnification X 6). Figure 6: Detail of Girdle Scales (Magnification X 40).

Figures 7 & 8: *Ischnochiton weedingi*, sp. nov. Holotype, Aust. Mus., Regd. No. C.62218. Figure 7: Dorsal View of whole shell (Magnification X 6). Figure 8: Detail of Girdle Scales (Magnification X 100).

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mosaic of minute, elongate scale interspersed with numerous lanceolate glossy spicules which are more frequent towards the outer edge; ocelli occurring in 5 or 6 rows on the anterior valve, one row on each side of the median valves, and 2 or 3 irregular rows on the post-mucronal area of the posterior valve.

Type Locality: Heron Island, Capricorn Group, Queensland.

Habitat: Living on algae the same colour as the shell, growing on coral rocks well inside the reef, near the shore at low-tide mark.

Types: The holotype (a complete shell) and one disarticulated paratype are in the National Museum of Victoria, Melbourne, Registered numbers F.18471 and F.18061, respectively. Paratypes in the Australian Museum, Sydney (C.62216), the South Australian Museum, Adelaide, and the specimen here figured in the author's private collection.

Remarks: The generic placing of this species is confirmed by the prominent toothed insertion plate of the posterior valve, which serves to separate it from *Onithochiton*. On the other hand, it resembles *Onithochiton ashbyi* in that the species loses its "outer covering" and colour when placed in alcohol. In this it differs from both *Lucilina fortilirata* and *L. shirleyi*. It was thought that this species might be the same as *Onithella helenae* McKay, but comparison with the type of that species in the National Museum proved that the two are quite distinct, for in *L. tilbrooki* the side slopes are more convex, and the external areas are irregularly pustulose, whereas in *O. helenae* they are smooth. The posterior valve of *O. helenae* is "small, triangular, depressed, mucro terminal," which is very different from the condition found in *L. tilbrooki*. Compared with the species which *L. tilbrooki* most resembles, namely, specimens of *Lucilina fortilirata* of comparable size, it will be seen that *L. tilbrooki* is narrower, the smooth jugal area is wider, the sculpture is coarser, and there are fewer sulcations in the pleural area of the median valves.

This species is named in honour of Mr. Max Tilbrook, of South Australia, an enthusiastic collector and student of chitons.

Genus HAPLOPLAX Pilsbry 1894.

Type Species by Original Designation, *Lophyrus smaragdinus* Angas 1867.

HAPLOPLAX MARIAE, sp. nov.

Description: Shell medium sized, moderately elevated, subcarinated, side slopes convex, form elongate oval, the dried specimen measuring 11.5 mm. in length by 6mm. in breadth; colour mottled slate-green, glistening; anterior valve with very faint growth lines, no sculpture; median valves with lateral areas slightly raised, smooth, with faint growth lines; pleural area smooth to naked eye, but with 6 weak striations under a lens; posterior valve with mucro raised, ante-median; ante-mucronal area smooth, post-mucronal area slightly concave, with faint growth lines; girdle very wide, with approximately 17 rows of large glistening opaque-silver and blue-green scales, faintly striate under a lens, diminishing as they approach the shell and outer margin (generic); the blue-green scales giving irregular striped or mottled effect amid the more frequent, opaque-silver scales. Interior and slitting unknown.

Type Locality: Heron Island, Capricorn Group, Queensland.

Habitat: Living under dead coral blocks, just inside the outer edge of the coral reef, coral overgrown to resemble rock surface.

Types: The holotype and paratype, the only specimens known, are in the Australian Museum, Sydney, Registered number C.62219.

Remarks: The additional width of the girdle in this species may have developed as a result of its station in more agitated water than is usually inhabited by members of the genus *Haploplax*. The species is named in honour of my wife, who has been of great assistance to me in collecting chitons.

Genus ISCHNOCHITON Gray 1847.

Type Species by Subsequent Designation, *Chiton textilis* Gray 1828.

ISCHNOCHITON WEEDINGI, sp. nov.

Description: Shell small, elongate oval, the dried specimen measuring 11.5 mm in length by 6 mm. in breadth; semi-carinated, side slopes slightly convex; colour pink, mottled with white on lateral areas, with yellow patches on pleural areas near the girdle; also two white triangles on the posterior valve with apices at the mucro; anterior valve finely granulose, with approximately 40 weak radiating rays; median valves with the lateral areas bearing three or four weak ribs, the pleural areas finely granulose; posterior valve with mucro slightly antemedian, slightly elevated; ante-mucronal area finely granulose, post-mucronal area concave, weakly rayed with numerous small, closely-packed, embricating scales with eight or more striations under the lens; scales of varying size in irregular rows, more regular near the shell. Interior and slitting unknown.

Type Locality: Caloundra, northern end of Moreton Bay, Queensland.

Habitat: Under large, smooth rocks on a rocky headland, in a position protected from the heavy seas; in shallow water at low tide.

Types: The unique holotype is in the Australian Museum, Sydney, Registered number C.62218.

Remarks: There is a dark patch on the apex of the anterior valve and on the mucro of the posterior valve. This description may require modification later, as it is based on the single known specimen. The species is very similar to some variations of *Ischnochiton ptychius* from South Australia. The main differences are that the central areas of *I. weedingi* have no zig-zag sculpture as do those of *I. ptychius*, and the girdle scales are smaller.

This species is named in honour of the Rev. B. J. Weeding, who made many valuable contributions to our knowledge of chitons.

Some Observations on Cowries Found at Woolgoolga, New South Wales

By V. POPPINS.

The only way in which we can learn anything of the lives of such difficult subjects as marine animals is by careful recording of our observations and the exchange of this usually meagre knowledge with other students.

Like many others, I have been attracted to the Cowry family by the beauty of the shells. But unlike most collectors I have the good fortune to live in a district where many species of cowrie can be found; not easily, perhaps, but in sufficient numbers to make the hunt always exciting and hopeful.